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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,342

01/27/2005

Donald Horton

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43520 7590 11/17/2009
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EXAMINER

FISHMAN, MARINA

ART UNIT

PAPER NUMBER

2833

MAIL DATE

DELIVERY MODE

11/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/523,342	HORTON ET AL.	
	Examiner	Art Unit	
	Marina Fishman	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 10/27/2009 has been entered. Claims 1-12 are pending in the case and are being examined.

Claim Objections

2. Claim 5 is objected to because of the following informalities: In Claim 1, line 5-6, recites "a bushing and shaft." and in Claim 5, line 1, recites "a shaft", it is not clear if the "shaft" recited in Claim 1 is the same as "a shaft" recited in Claim 5. The Examiner interprets the shaft recited in Claim 5 to be the same as the shaft recited in Claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemire [US 5,862,715] in view of Allison et al. [US 3,311,718].

Regarding Claim 1, Lemire discloses a rotary switch mounted through a panel [20], comprising:

- a detent sub-assembly [70, 136, 154; Figure 4] located entirely above the panel; and
- a knob [66] that substantially covers the detent sub-assembly wherein the detent sub-assembly is fully enclosed independent of the knob and further wherein only a bushing [48] and shaft [30, Figure 3] extend through the panel.

Regarding Claim 1, Lemire discloses the instant claimed invention except for a sealing member disposed between a portion of the switch and underside of the panel. Allison et al. disclose a switch assembly, with a seal [17]. The seal will be between a portion of the switch and underside of the panel upon mounting the switch assembly to a panel (panel not shown). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a seal between the panel and the switch in Lemire, as suggested by Allison, in order to prevent dirt entering the switch area below the panel and to simplify the switch design.

Regarding Claim 2, Lemire discloses the rotary switch, wherein the detent subassembly is not altered by removal of the knob. Regarding Claim 3, Lemire discloses the rotary switch, further comprising a spring [154] and at least one ball [156] that cooperates with a detent [136, 70] in the sub-assembly to provide discrete

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rotational positioning of the knob. Regarding Claim 4, Lemire discloses the rotary switch, wherein the at least one balls does not extend into the panel. Regarding Claim 5, Lemire discloses the rotary switch, further comprising the shaft [30] that extends through the panel and the detent sub-assembly and is coupled to the knob [66].

Regarding Claim 6-11, Lemire discloses the rotary switch. However, Lemire does not disclose the shaft is further coupled to an electrical contact that contacts a printed circuit board below the panel and the detent sub-assembly further comprises a detent sprocket having cylindrical lobes that cooperate with the spring, the shaft, and a rotor to set a switch position. Allison et al. disclose a switch assembly, with an electrical contacts [22] that are capable of being mounted on a printed circuit board and the detent sub-assembly with a sprocket having cylindrical lobes [32] that cooperate with the spring [35], the shaft, and a rotor to set a switch position. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the contacts that are capable of being mounted to a circuit board to connect to circuitry on the circuit board and also use detent assembly with a cylindrical lobes with a spring in Lemire, as suggested by Allison, in order to reduce number of springs and to simplify the switch design. Regarding Claim 12, Lemire discloses the rotary switch, wherein the detent sub-assembly has a single spring [154].

5. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kroll et al. [US 3,662,618] in view of Allison et al. [US 3,311,718].

Regarding Claim 1, Kroll et al. disclose a rotary switch mounted through a panel [110], comprising:

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- a detent sub-assembly [20, 26, 106, 130; Figure 1] located entirely above the panel; and
- a knob [42,50] that substantially covers the detent sub-assembly wherein the detent sub-assembly is fully enclosed independent of the knob and further wherein only a bushing [102] and shaft [60, Figure 3] extend through the panel.

Regarding Claim 1, Kroll et al. disclose the instant claimed invention except for a sealing member disposed between a portion of the switch and underside of the panel. Allison et al. disclose a switch assembly, with a seal [17]. The seal will be between a portion of the switch and underside of the panel upon mounting the switch assembly to a panel (panel not shown). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a seal between the panel and the switch in Kroll et al., as suggested by Allison, in order to prevent dirt entering the switch area below the panel and to simplify the switch design.

Regarding Claim 2, Kroll et al. disclose the rotary switch, wherein the detent subassembly is not altered by removal of the knob. Regarding Claim 3, Kroll et al. disclose the rotary switch, further comprising a spring [26] and at least one ball [151] that cooperates with a detent [106] in the sub-assembly to provide discrete rotational positioning of the knob. Regarding Claim 4, Kroll et al. disclose the rotary switch, wherein the at least one balls does not extend into the panel. Regarding Claim 5, Kroll et al. disclose the rotary switch, further comprising the shaft [60] that extends through the panel and the detent sub-assembly and is coupled to the knob. Regarding Claim 6-

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11, Kroll et al. disclose the rotary switch. However, Kroll et al. do not disclose the shaft is further coupled to an electrical contact that contacts a printed circuit board below the panel and the detent sub-assembly further comprises a detent sprocket having cylindrical lobes that cooperate with the spring, the shaft, and a rotor to set a switch position. Allison et al. disclose a switch assembly, with electrical contacts [22] that are capable of being mounted on a printed circuit board and the detent sub-assembly with a sprocket having cylindrical lobes [32] that cooperate with the spring [35], the shaft, and a rotor to set a switch position. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the contacts that are capable of being mounted to a circuit board to connect to circuitry on the circuit board and also use detent assembly with a cylindrical lobes with a spring, in Kroll et al. as suggested by Allison, in order to reduce number of springs and to simplify the switch design.

Regarding Claim 12, Kroll et al. disclose the rotary switch, wherein the detent sub-assembly has a single spring [26].

Response to Arguments

6. Applicant's arguments with respect to claims 1 - 12 have been considered but are moot in view of the new grounds of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Fishman whose telephone number is (571)272-1991. The examiner can normally be reached during business hours, Monday through Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee S. Luebke can be reached on 571-272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marina Fishman/
Examiner, Art Unit 2833
November 10, 2009

/renee s luebke/
Renee Luebke
Supervisory Patent Examiner
AU 2833